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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,671	06/15/2001	Youichirou Sugino	04558/050001	9498

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EXAMINER
DICUS, TAMRA

ART UNIT	PAPER NUMBER
1774	9

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/882,671	SUGINO ET AL.	
	Examiner	Art Unit	
	Tamra L. Dicus	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 20-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Acknowledgement is made of Applicant's election of claims 1-18 in Paper No. 8 submitted Oct. 16, 2002. Claims 19 and 20 are withdrawn.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17, 30, 32, and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 17 and 32 includes a symbol, λ. The Examiner suggests using a generic term in place of the symbol. Claim 34 includes the limitation "brightness-enhanced". The term "brightness-enhanced" in claim 34 is a relative term which renders the claim indefinite. The term "brightness-enhanced" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claim 30 includes the limitation "transflector" which is a relative term and thereby not clear.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-

> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1, 5, 7-9, 12-15, 18, 22, 28, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,914,073 to Kobayashi et al.

Kobayashi teaches using various suitable transparent polarizing films including polyester such as polyethylene terephthalate, triacetylcellulose, polyvinyl alcohol, or ethylene-vinyl alcohol with hydrophilic polymers such as PVA or cellulose derivatives. The hydrophilic polymers are used in solutions and are used to coat the transparent film via extrusion or dipping. An additional protective film may adhere to one or both sides of a polarizing film producing a polarizing plate. See col. 2, lines 50-68, col. 3, line 14-39, col. 6, line 10-15, col. 15, lines 17-55, col. 20, lines 33-40, and Example 1.

The limitations "formed by..." and "laminated on" of claims 1, 2, 8, 22, and 35 are process limitations in a product claim. The process notwithstanding. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown,* 459 F. 29 531. Thereby, the process directed properties e.g. "shrinkage force...after being heated" and "dimensional change rate...after being heated" of claims 1, 2, 8, 16, and 21- 23, are immaterial

to patentability. Moreover, such properties will also be inherent since the same materials and processes (see example 6) are used. Additionally, while Kobayashi does not teach the heat treatment of a polarizer at the process requirements of time and temperature of claims 1, 2, 8, 16, and 21-23, e.g. 70 degree Celsius for 120 hours of claim 16, however, these are process limitations in product claims. Process notwithstanding. Kobayashi explicitly teaches thickness of a polarizer is dependent upon the polymer desired at col. 3, line 34-40, and teaches polymeric thickness may range from 20 microns to 1 mm of a polymeric film serving as a polarizer film, or as a protective film may range from 0.1 to 30 microns at col. 4, one 51.

With respect to claims 7 and 28, stating the polymerization and saponification degrees properties of PVA, such properties are inherent since the same material is used.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-35 and 21-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,361,838 to Miyatake et al. in view of USPN 5,914,073 to Kobayashi et al., and USPN 6,065,457 to Aminaka.

Miyatake teaches an optical film/member that may be used to produce a multilayer structure by providing optical layers on sides of a polarizing/retardation film that includes absorption types like hydrophilic polymer films of PVA that have been stretched. See col. 7, lines 39-65, and col. 8, lines 5-54. Such optical films, like those of instant claims 17 and 29-34 may be used to produce the following types of films: absorption type, reflection type, scattering type polarizers, retardation films including a quarter-wavelength plate, a half-wavelength plate, a retardation film comprising a uni- or biaxially or otherwise stretched film, a film comprising a film which has undergone inclined orientation, i.e., which has undergone molecular orientation also in the thickness direction, a film comprising a liquid crystal polymer, a film in which a retardation caused by a viewing angle or birefringence is compensated for, and a film comprising two or more of these retardation films superposed on each other. See col. 8, lines 1-54. Miyatake teaches a polarizing film also includes a polarizing film comprising any of the above-described polarizing films and a transparent protective layer formed on one or each side thereof for the purpose of protection against water. The protective layer may be, for example, a coating layer of a plastic or a laminated film layer. Refer to col. 8, lines 28-30. Miyatake does not explicitly define the aforementioned functional films as "brightness-enhanced" or a "transflector". The Examiner takes the position that the phrase "brightness-enhanced" is equivalent to the backlight of Miyatake at col. 8, line 1 and lines 54-59 and the optical film that functions to improve perceptibility and bright displays as taught by Miyatake at col. 6, lines 50-60. The Examiner also takes the position that "transflector" is synonymous to an optical layer that reflects or scatters light as taught above in the aforementioned film types. Also note Aminaka teaches liquid crystal displays having ellipsoidal polarizing plates containing optical

layers that result in a display exhibiting refractive index and retardation values, which are considered to be a reflector/transflector. Aminaka also teaches a protective layer and adhesive layer may be on a transparent polymer film (also using triacetyl cellulose and hydrophilic polymers). See col. 11, lines 1-33-45, and col. 20, line 30-col. 21, line 35.

Miyatake also teaches using an adhesive layer having a thickness of 20 microns of an acrylic PSA in Example 2. Miyatake does not explicitly state a protective or polarizing layer may have thicknesses in the ranges claimed in instant claims 3, 4, 6, 10, 11, 24, 25, and 27. However, at col. 5, lines 45-50 Miyatake teaches it is known to provide a thickness to a film anywhere from 1 to 500 microns. In addition Kobayashi explicitly teaches thickness of a polarizer is dependent upon the polymer desired at col. 3, line 34-40, and teaches polymeric thickness may range from 20 microns to 1 mm of a polymeric film serving as a polarizer film, or as a protective film may range from 0.1 to 30 microns at col. 4, one 51. Therefore it would have been obvious to one of ordinary skill in the art to modify a film to provide specific thicknesses attributed to any polymeric layer such as a protective or polarizing layer since Miyatake teaches films can be between 1 and 500 microns especially suited for films made by extrusion (changing the die size easily changes the thickness) at col. 5, lines 25-50 and Kobayashi teaches thickness is dependent upon the polymer chosen at col. 3, line 34-40.

Miyatake does not explicitly state the heat treatment of a polarizer at the process requirements of time and temperature of claims 1, 2, 8, 16, and 21-23, e.g. 70 degree Celsius for 120 hours of claim 16, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render Applicant's claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. Additionally, Kobayashi teaches process

variables of 80 and 100 degrees Celsius for 5 minutes and stretching in the MD direction under such conditions of time and temperature directly effects the thickness of film (see Examples 1, 2, 6). Hence, the polarizing plate thickness relationship of claim 8 and 9 are result effective variables also. Kobayashi explicitly teaches thickness of a polarizer is dependent upon the polymer desired at col. 3, line 34-40, and teaches polymeric thickness may range from 20 microns to 1 mm of a polymeric film serving as a polarizer film, or as a protective film may range from 0.1 to 30 microns at col. 4, one 51. Moreover, such treatment language are process limitations in a product claim. Process limitations not given any patentable weight. See MPEP 2113.

Miyatake does not disclose the polymerization and saponification degrees properties of PVA of claims 7 and 28, such properties are inherent since the same material is used. Additionally, Aminaka teaches using PVA having saponification degree of not smaller than 80% and a polymerization degree preferably of not smaller than 200. See col. 20, lines 5-12.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,051,289 to Tsujimoto et al. teaches polymer films for liquid crystal elements contain thermoplastic films stretched biaxially or uniaxially in the MD direction especially suited for rubbing treatments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Tamra L. Dicus
Examiner
Art Unit 1774

November 15, 2002